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ABSTRACT

After a survey of existing behavioral measures was made, a behavior rating scale was developed to measure the observable disruptive behavior of emotionally disturbed children in the classroom. Estimates of various types of reliability were calculated, and scale validity was examined. The scale was used to evaluate the effect of counseling on children referred by teachers because of maladjustive classroom behavior and indicated that counselors were effective in improving classroom behavior in a significant number of cases. (Author/RC)

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Validation of a Scale to Measure Classroom Behavior

(John F. Howell)

After a survey of existing behavioral measures were made, a behavior rating scale was developed to measure the observable behavior of children in the classroom. Estimates of various types of reliability were calculated, and scale validity was examined. The scale was used to evaluate the effect of counseling on children referred by teachers because of maladjustive classroom behavior and indicated that counselors were effective in improving classroom behavior in a significant number of cases.

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Validation of a Scale to Measure Classroom Behavior

The need for counseling services appears to be obvious. The statement that ten percent of school age children need psychological help has been generally accepted, stemming mostly from a classic study done by the California State Department of Education (1958). Other studies cited the ten percent estimate (Faas, 1970; Christiansen, 1967) and one even cited fiftee n percent (Couchman, 1974). In a school system with 30,000 pupils, an estimated 3000 need some psychological help, but, as Couchman (1974) has pointed out, most emotionally disturbed children do not receive the intensive mental health care needed simply because facilities are not available. For many children in need, the only source of counseling is a school adjustment counselor, who alone is expected to be the psychological change agent (Eckerson, 1972).

Often the emotionally disturbed child manifests disruptive classroom behavior, acting out, upsetting himself, annoying the teacher and his peers. Since the teacher may be unable to cope with this special kind of disturbance, Springfield Public Schools decided to use adjustment counselors to assist the classroom teacher in dealing with these behavioral problems. In addition to these counselors, a special unit was established to deliver intensive counseling specifically to help those students who were eligible to receive Title I services. The Social and Psychological Services Unit (SPS) was founded as an adjunct to the Bureau of Pupil Services under the auspices of Title I, ESEA of 1965, as amended, to offer intensive counseling as a supplement to services rendered by the Bureau.

The purpose of this study was to demonstrate that classroom behavior can be reliably and validly determined, and that such behavioral measurements can be used as the basis for evaluating the effectiveness of a particular counseling unit

within a public schools organization. The study was begun in 1973 and replicated in 1974.

In order to determine the effectiveness of the SPS Unit in changing the disruptive behaviors of emotionally disturbed children, some measure of classroom behavior was needed. It was decided that a behavior checklist or rating scale would provide the necessary information since several successful behavioral rating scales have been developed (Spivack and Swift, 1966: Ross, Lacey and Partop, 1965; Dayton, 1967; Rutter, 1967; Walker, 1967) with many more undoubtedly developed and used in local situations. Instead of using a previously developed scale, the SPS counselors felt that a locally developed scale, comprised of items originating from their experience with behavior problems in the local schools, would form a more valid instrument.

The rating scale developed was a frequency type checklist of positive and negative behavioral characteristics, following closely the suggestions found in Thorndike and Hagan (1969, Chapter 17). The final scale consisted of 36 items. Internal consistency reliability estimates have been estimated between .91 and .93 while stability estimates have been recorded as high as .77 but generally average about .55 as depicted in Table 1.

Insert Table 1 about here

Spivack and Swift (1973) studied general rating scale validity and concluded that teacher ratings do not appreciable differ from peer ratings and that teacher bias should be considered minimal. Validity, in the present study, in addition to the face-validity obtained through development by the counselors, consisted of a study performed in 1973, and displayed in Table 2.

In that study, counselors were asked to specify subjectively as to whether or not the students they had been working with had in fact improved in terms of their emotional problems. They had no knowledge of the results of the ratings by the various classroom teachers. The students were classified as to "Improved", "No Change", or "Intensified".

Insert Table 2 about here

The "Improved" students showed significant improvement in reported classroom ratings ($t=5.32$, $df=98$, $p < .05$) while those whose condition had "Intensified" showed a significant decrease in rated behavior ($t=2.37$, $df=11$, $p < .05$). Students who had "No Change" in their counseling status also demonstrated no change in their classroom behavior. The results of this investigation were interpreted as evidence supporting the validity of the scale.

Thorndike and Hagen (1969) cautioned that the two biggest threats to the validity of any rating scale were the lack of reliability and the effect of teacher bias. Neither seemed to present a problem for the instrument developed in the present study.

As an evaluative tool in 1972-73, 44 counseled students showed improved classroom behavior as rated by the classroom teacher, while 30 did not show improvement or showed a more disruptive pattern. Given that the scale is reliable and valid as a measure of counseling effectiveness, the conclusion was warranted that the counselors as a group were 59.5% effective in improving classroom behavior through psychological counseling.

The results for 1973-74 indicated that 90 of 160 students referred for counseling had higher behavioral ratings at the end of the school year than upon referral. That is, 56.25% of counseled students had higher ratings while

43.75% did not. With p=.5625, q=.4375, and n=160, the standard error equaled .0392 ($\sqrt{pq/n}$; see Hays, 1963). Thus, the proportional difference of .125 resulted in a z=3.189, significant at .01. The conclusion, based on behavioral ratings, was that counselors were effective in improving the rated behavior of a substantial proportion of referred clients. The results were consistent with those of 1972-73.

DISCUSSION

The consistency of the results over two years of evaluation led to the conclusion that counselors were effective with slightly less 60% of those referred to them for intensive counseling. There may be several reasons as to why the counselors were not effective with more referred students; (1) The counselors tended to operate eclectically, dealing with problems, emotions, and behavior in a rather varied manner. Inservice workshops were given in behavioral modification methodology with the purpose of focusing counseling efforts on the elimination of disruptive behavior. (2) Intensive, meaning as frequently as needed, may be an inappropriate term since the counselors were restricted to school time. Some out-of-school work was performed but little was accomplished on vacation time, and little middle-of-the-night therapy was performed (3) Many student problems were brought to school, the result of out-of-school tensions. Such problems were particularly resistant to school-identified counselors who were often not allowed to get involved in non-school related situations.

In summary, counselors were evaluated as meeting the objective of helping students achieve improved classroom behavior for approximately 60% of students referred to them. In light of the restrictions discussed above, the percentage was considered to be realistically acceptable.

Further exploration of behavioral change methodology was seen as valuable to not only focus counseling efforts but also to provide some help to students whose problems lay outside the classroom. The instrument and design suggested here should be useful in evaluating the results of that further exploration.

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TABLE 1

Stability Coefficients for all Rated Groups with Constant Raters

Year	n	Fall Rating	Winter Rating	Spring Rating	Fall-Spring Correlation	Winter-Spring Correlation
1972-73	164	111.5	113.3	114.6	.45	.77
1973-74	134	110.6	114.3	114.8	.51	.74

TABLE 2

Mean Composite Behavioral Rating

Classification	n	Fall Rating	Winter Rating	Spring Rating
Improved	99	110.8	117.0	120.7
Unchanged	53	109.7	109.3	108.7
Intensified	12	104.8	100.8	91.8